

METHODS AND APPARATUS FOR ROTOR
OVERSPEED AND OVERBOOST PROTECTION

ABSTRACT OF THE DISCLOSURE

5 A rotor overspeed protection system for a gas turbine engine controls engine fuel flow to prevent an engine rotor from over-speeding. The engine fuel metering system includes a fuel metering valve in flow communication with a fuel shutoff valve and a fuel bypass valve. The rotor protection system includes an overboost servovalve and a solenoid valve coupled to the fuel metering system and to an independent speed sensing system. In operation, servovalve can control the metered fuel flow to engine independently of the fuel metering valve to facilitate reducing rotor overspeeds and overboosts.